

Emulsion polymerization of olefins

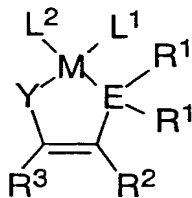
Abstract

5

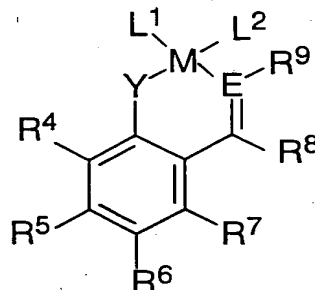
A process for emulsion polymerizing one or more olefins involves reacting it/them with at least one complex compound of the formula Ia or b

10

15



Ia



Ib

20

where M is a transition metal from groups 7 to 10 of the Periodic Table of the Elements and is preferably Ni in aqueous dispersion and at least one radical R^1 to R^3 and optionally one radical R^4 to R^9 contains a hydrophilic group X, selection being made from

25 $-\text{SO}_3^-$, $-\text{O}-\text{PO}_3^{2-}$, $\text{NH}(\text{R}^{15})_2^+$, $\text{N}(\text{R}^{15})_3^+$ or $-(\text{OCH}_2\text{CH}_2)_n\text{OH}$, where n is an integer between 1 and 15. For the process of the invention it is optional to use an activator such as, for example, olefin complexes of rhodium or of nickel. This invention further relates to dispersions of polyolefins such as polyethylene and ethylene

30 copolymers in water, for example, and to the use of the aqueous dispersions of the invention for paper applications such as paper coating or surface sizing, paints, adhesive base materials, molded foams such as mattresses, textile and leather applications, carpet back coatings, or pharmaceutical

35 applications.

40

45